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9302693

MAR 31 1993

93-RPB-018

Ms. Mary Riveland, Director
State of Washington
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

Ms. Dana Rasmussen
Regional Administrator
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Dear Ms. Riveland and Ms. Rasmussen:

REQUEST TO MODIFY THE HANFORD FEDERAL FACILITY COMPLIANCE AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT)

This letter requests your consideration of several major U.S. Department of Energy (DOE) proposals. First, I request your consideration of DOE's proposed new technical strategy to manage, treat and dispose of the waste stored in the 149 single- and 28 double-shell tanks. Second, I request mutual agreement to suspend the start of the vitrification building construction, to provide time for enhanced public involvement in the critical regulatory decisions which need to be made on both the vitrification plant and tank waste remediation. Third, I would like to discuss public involvement, recommendations for improved interface between our organizations, and activities DOE is proposing to accelerate in order to demonstrate our continuing commitment to Hanford cleanup. Lastly, I would like to accept the Governor's recommendation that DOE and the State of Washington sponsor an economic conference capitalizing on the technology that will need to be developed to support Hanford cleanup.

I would like first to present the proposed new technical strategy that resulted from rebaselining the Tank Waste Remediation System. There are several key features of the proposed new technical strategy that I believe will improve our approach to Hanford remediation:

- Retrieval of waste from 149 single-shell tanks in addition to the 28 double-shell tanks
- Acceleration of safety concern resolution
  - mitigation/resolution, as soon as possible, of safety issues such as ferrocyanide and periodic venting of flammable gases
  - pumping liquid from single-shell tanks to reduce leaks
  - development of barrier technology to control contamination spread

- Upgrade of tank farms
  - improvement of tank farm instrumentation, such as the leak detection systems and automatic data collection systems
  - upgrade/procurement of new transfer systems, ventilation equipment, etc.
  - building needed new tanks to support tank waste remediation and Hanford environmental cleanup mission
- Demonstration by 1997 of pretreatment technologies for liquid and saltcake waste, initiation of full-scale cleanup of Hanford tank waste upon successful demonstrations, and disposal of the treated waste as grout onsite
- Delaying the processing of sludge to allow parallel technology development for advanced separations and high capacity vitrification (neither technology is currently available) with selection of the preferred technology in 3-5 years; and in the meantime, consolidating sludge to facilitate processing and immobilization

I believe this proposal offers substantial improvements over the current tank waste management program and is consistent with the current mission to clean up the Hanford Site. However, more time is needed to complete development of the Tank Waste Remediation System program, given the many complex technical, technology-availability, regulatory and public policy issues inherent in this program. Enclosed is a change request that reflects a "core program" to initiate implementation of this proposed new technical strategy. DOE recognizes that your participation is needed to ensure the appropriateness of the objectives and their implementation as reflected in the proposed new technical strategy, and to continue with our systems engineering process to formulate a program to implement the technical strategy agreed to among all parties. Together we can formulate a realistic program to remediate the Hanford tank waste, including establishing a realistic goal for cleanup of the Hanford Site.

Second, I believe that good cause exists to modify the Tri-Party Agreement and delay the start of construction of the vitrification plant. The reasons for such a modification include:

- The need to address single- as well as double-shell tank waste;
- The unavailability of any existing facility for pretreatment;
- The need to revise the characterization program for single-shell tank waste to reflect retrieval of waste from those tanks;
- The recent Nuclear Regulatory Commission determination requiring pretreatment of tank waste before disposal as grout;
- The lack of integration of the vitrification building with waste characterization, retrieval, and pretreatment capability;
- The inadequacy of the current design capacity to accommodate both double- and single-shell tank wastes;

- The need to assimilate the "lessons learned" from DOE's experience with the vitrification plant at the Savannah River Site;
- The desire to minimize the expenditure of resources in activities that are likely to change.

For all of these reasons, commencement of construction of the Hanford Waste Vitrification Plant at this time would be imprudent. I strongly believe that the public must be fully informed about the issues and new information related to the vitrification plant, prior to proceeding to meet the existing milestone for start of construction. A delay in the construction of the vitrification plant will not, however, delay ongoing construction of the canister storage facility which DOE believes can be used for other purposes. Accordingly, DOE is recommending the delay of the vitrification plant construction under Article XL, "Extensions," of the Tri-Party Agreement.

In our discussions, we have agreed that public understanding and involvement are essential as we develop a new strategy to remediate the Hanford tank waste. Now we need to jointly request from our stakeholders how they would like to be informed and involved on this issue. Our staffs need to work together with these stakeholders to quickly develop a public involvement strategy. The process we develop for the Hanford tank waste can also be used as we implement the recommendations by the Hanford Future Site Uses Working Group.

While I have proposed extensive and fundamental changes to the tank waste milestones in the Tri-Party Agreement, I would like to reinforce my continued support of the Agreement.

I would like to discuss with you proposals to continue to accelerate cleanup of Hanford waste sites. In proposing work to be accelerated, we paid particular attention to safety, the Hanford Future Site Uses Working Group's recommendations, and existing agreements. We propose to continue our programs for resolving tank safety issues, upgrading the tank farm infrastructure, and building new tanks and the initial pretreatment module. Our goal over the next 18 months is to complete cleanup for future use of approximately 50 percent of the Hanford Site. This includes the Arid Lands Ecology Reserve and north slope areas of the site. We also are accelerating the decommissioning of surplus facilities in the 100 areas. This will significantly reduce industrial safety hazards and remove these facilities from along the Columbia River. We are preparing detailed schedules for these accelerated actions and will have them ready for your review in April.

I would like to reiterate two points Secretary Hazel O'Leary made in her March 19, 1993, meeting with Governor Mike Lowry. First, DOE will be working to decentralize authority for decisions. We will put a program in place to increase authority and accountability in the field, where the responsibility for implementing these decisions rests. Second, I will insure that the

recommendations in the Schedule Optimization Study continue to be implemented.

Furthermore, I want to invite you to review and comment on proposed allocations of the President's Fiscal Year 1994 Environmental Restoration and Waste Management budget for the Hanford Site. I suggest our staffs meet to determine the most effective method to do this. I also wish to assure you that DOE will make efforts to level expenditures, as much as practicable, over the outyears to benefit the state and the local communities.

In addition, I would like to endorse the proposed economic conference. As has been discussed with the Governor's office, I propose that Governor Lowry and the DOE jointly establish an economic conference to address how the communities and citizens of the State of Washington can best capitalize on the economic development opportunity Hanford presents for technology development, application, and transfer to the private sector.

Several primary technical documents are enclosed to present key features of the New Technical Strategy: Tank Farm Strategic Plan, Integrated Technology Plan, Functions and Requirements Document, Technical Options Report, and Decision Analysis. We have issued these technical documents as draft pending completion of Headquarters review and comment. Issuance of management documents, including the Program Plan and Program Management Plan will be delayed until Headquarters review and approval have been completed.

I propose that key members of our staffs meet next week to begin discussions on the Tank Waste Remediation System proposals I have outlined. Please call Mr. Jim Bauer of my staff on (509) 376-5441 or me on (509) 376-7395 to coordinate these discussions.

Sincerely,

John D. Wagoner
Manager

EAP:JDB

Enclosures:
1. Tri-Party Agreement
   Change Request
2. Draft Technical Documents

cc w/encls 1&2:
D. Silver, Ecology
R. Stanley, Ecology
P. Day, EPA

cc: w/encl 1:
T. Anderson, WHC
W. Wiley, PNL
J. Tseng, EM-36
S. Cowan, EM-30

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Change Number M-TWRS-93-01	**Federal Facility Agreement and Consent Order Change Control Form** Do not use blue ink. Type or print using black ink.	Date

Originator — Phone

Class of Change
[x] I - Signatories [ ] II - Project Manager [ ] III - Unit Manager

Change Title
Tank Waste Remediation System Integrated Change Request Encompassing Management, Processing, and Disposal of Wastes Currently Stored in Single- and Double-Shell Tanks

Description/Justification of Change
This change request proposes fundamental changes to the Hanford Federal Facility Agreement and Consent Order (commonly know as the Tri-Party Agreement) milestones which encompass the management, treatment, and disposal of wastes currently stored in single- and double-shell tanks. The request is divided into five sections. The first section provides the background for the changes. The second section provides a description of the TWRS new technical strategy. The third section provides a strategy for grouping the Tri-Party Agreement milestones to accommodate the changes proposed by the New Technical Strategy and a strategy to support the decisions which will be made during the technology development phase of the program. (continued on page 2)

Impact of Change This change request deletes major milestones M-01 through M-10, and M-31. Much of the work scope encompassed by these milestones will be included in the reconfigured portion of the Tri-Party Agreement proposed by this change. In addition, three major new milestones groupings will be created to reflect the major programmatic elements of the Tank Waste Remediation System program. These three major milestone groups are:

- M-40 through 49 Manage Tank Waste
- M-50 through 59 Process Tank Waste
- M-60 through 69 Manage System Generated Waste

Each of these milestone groupings will have a number of major milestones which reflect the key work to be performed within the program area.

Affected Documents The Hanford Federal Facility Agreement and Consent Order; Tank Waste Remediation System (TWRS) Program Plans, Budgets, Schedules, Work Plans, etc; a new TWRS-EIS will be developed; and generally all tank waste-related programs will be integrated.

Approvals ___ Approved ___ Disapproved

DOE ______ Date ______

EPA ______ Date ______

Ecology ______ Date ______

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Description/Justification of Change (Cont.)

The fourth section provides an outline of the milestones being proposed by the change request. The fifth section provides the specific new milestone descriptions which the U.S. Department of Energy (DOE) suggests be established to reflect the adoption of this integrated approach to the management and clean-up of tank wastes.

Section 1; Background:

The "Environmental Impact Statement for the Disposal of Hanford Defense High-Level, Transuranic and Tank Waste" (HDW-EIS) Record of Decision (ROD), issued on April 8, 1988, established the technical direction that the retrieval, pretreatment, and disposal of double-shell tank wastes would take. Priority was focused on retrieving, processing, and disposing of the waste in the 28 double-shell tanks. Waste from 10 of the double-shell tanks was to be retrieved, pretreated and immobilized with the high-level fraction vitrified for disposal in a federally licensed geologic repository and low-level fraction disposed of on-site as grout. Waste in the remaining 18 double-shell tanks was to be retrieved and immobilized in grout, without pretreatment, for on site disposal as low-level waste. Waste pretreatment was to be accomplished in modified existing facilities.

The HDW-EIS ROD deferred decisions on the disposal of waste in the 149 single-shell tanks until additional development and evaluation could take place. The technical direction established by the HDW-EIS ROD served as the basis for negotiation of the original Tri-Party Agreement in 1989 in the area of disposal of tank wastes.

The Tri-Party Agreement set forth actions and milestones deemed necessary to ensure acceptable progress towards implementing the course of action outlined by the HDW-EIS and actions to bring the Hanford Site into compliance with Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Washington State Hazardous Waste Management Act. Inherent in the negotiation of the original Tri-Party Agreement milestones was a set of underlying assumptions and constraints including: use of existing facilities (B-Plant and 244-AR Vault for pretreatment and use of existing lines for waste transfer); grout disposal of certain tank waste without pretreatment, deferral of the decision to retrieve single-shell tank waste until 2003; and the availability of lessons learned and data from the Defense Waste Processing Facility (DWPF) at the Savannah River Site. These assumptions were considered valid at the time of the negotiations.

A number of significant changes have occurred in tank waste conditions and understanding, requirements, and policy since the Record of Decision for the HDW-EIS was issued and the original Tri-Party Agreement was signed.

First and foremost was the emergence of potential imminent threats to safety and the environment posed by waste in a number of tanks. High priority issues included flammable gases, flammable and/or explosive organic and ferrocyanide compounds, high heat, noxious tank vapors, and criticality. Second was the deterioration and leaking of the single-shell tanks and deterioration of the overall tank farm infrastructure, including systems critical to ensuring safety and environmental protection. Third, environmental, safety and regulatory considerations have resulted in the Department's determination to plan to retrieve waste from the single-shell tanks. Retrieval of waste from the single-shell tanks would result in a four-fold increase in the quantity of waste to be processed; the current vitrification and grout facilities are significantly undersized to

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Description/Justification of Change (Cont.)

process this increased volume and placing additional emphasis on the need to develop a robust pretreatment capability. Additionally the complexity, difficulty, and uncertainty of all aspects of the tank waste remediation effort (including retrieval, pretreatment, immobilization, and disposal) are greatly increased by the physical and chemical characteristics of the single-shell tank waste, the heterogeneity of the waste, the very limited information available on waste and tank conditions, and the poor and deteriorating condition of the single-shell tanks and supporting infrastructure. Fourth, regulatory criteria, particularly those promulgated under the RCRA preclude the use of existing facilities, including B Plant, for critical waste pretreatment process operations. Fifth, DOE believes, based on the recent Nuclear Regulatory Commission determination, that liquid in double-shell tanks requires pretreatment prior to grout disposal; this action would require planning to obtain the necessary pretreatment capability.

The identification of tank safety issues, the poor and deteriorating condition of single-shell tanks, the inclusion of single-shell tank wastes in the planning base for retrieval and treatment of tank wastes, the need to pretreat liquid from these tanks prior to grout disposal, and the loss of B Plant as the facility for pretreatment and treatment of these wastes severely undermined the technical feasibility of the tank waste program as originally envisioned and incorporated into the Tri-Party Agreement.

In December 1991, the three parties to the Tri-Party Agreement, (the U.S. Department of Energy, the Washington State Department of Ecology, and the U.S. Environmental Protection Agency) agreed to a comprehensive "rebaselining" effort to assess the impact of changes upon the remediation program and associated Tri-Party Agreement milestones and, if justified by the assessment, entertain a proposal to revise the plan, i.e., employ a new technical strategy and baseline.

The Tank Waste Remediation System (TWRS) Rebaselining Study was undertaken to provide a systematic reevaluation of the strategy and technologies that should be considered to provide the best technical solution to the Hanford tank waste problems. The result of this study is a proposed New Technical Strategy.

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Description/Justification of Change (Cont.)

Section 2: Proposed TWRS New Technical Strategy

The primary goal of the Tank Waste Remediation System is to minimize the environmental, safety and health risks associated with existing waste stored in the double-shell tanks and single-shell tanks, with reduction of safety risks given the highest priority. The new technical strategy contains three major program elements. These are to Manage Tank Waste, Process Waste, and Manage System-Generated Waste and Excess Facilities. These three elements are briefly described below.

Manage Tank Waste - includes a wide range of activities to ensure that the storage, characterization, retrieval, and transfer of double- and single-shell tank wastes is conducted in a safe, environmentally sound, and compliant manner, and to ensure that these activities are integrated with and supportive of other TWRS activities. Major activities include:

- Characterize the waste in double-and single-shell tanks to support safety issue resolution, technology development, waste retrieval, and processing for disposal. Characterization is an integral part of the entire Tank Waste Remediation System. The characterization program embodied in the current Tri-Party Agreement focuses on obtaining information about the contents of single-shell tanks to support a future "leave/retrieve" decision. As retrieval of the single-shell tank wastes is the planning basis for the proposed New Technical Strategy, the characterization program must be refocused to obtain information on the characteristics of the tank waste needed for safety issues resolution and for development and implementation of waste retrieval and processing capabilities required for successful implementation of the New Technical Strategy. The efficiency of the characterization program will be enhanced through the use of the Data Quality Objectives approach to defining data needs, judicious use of existing analytical and process history information, development of techniques for in situ characterization, and use of offsite analytical laboratories to supplement the analytical capacity and capabilities of the Hanford analytical laboratories;

- Resolve safety issues, including noxious vapors issues;

- Establish a comprehensive safety and environmental basis for resolving safety issues, operating facilities, restoring and upgrading facilities equipment, and all other activities needed to ensure safe and environmentally sound management of tank waste;

- Restore and upgrade facilities and systems to improve facility operations and surveillance (ensuring safe storage and transfer of the wastes);

- Prevent or minimize leaks to the environment;

- Provide sufficient waste storage capacity to support safety issue resolution, retrieval and processing needs, and the overall Hanford environmental restoration missions, including construction of new double-shell tanks; and

- Establish waste retrieval capability to support the Process Waste function.

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Description/Justification of Change (Cont.)

Process Waste - This element of the proposed New Technical Strategy encompasses activities required for processing of tank wastes for disposal. One key aspect is the early pretreatment of the soluble fraction of the tank wastes (which comprises the majority of tank waste volume) to remove the majority of their radioactivity and destroy hazardous components. Another key element is development of the technologies required for decision on the process and capacity needed to pretreat and immobilize the sludge portion of the tank waste, followed by design, construction, and operation of the facilities required to implement this decision.

Within the proposed New Technical Strategy, an accelerated development and deployment of required processing capabilities coupled with a phased approach to processing of the waste (the order in which wastes will be processed will be phased to coincide with the availability of the capability required to perform the needed processing) is planned. In order to ensure that the required processing capabilities are operational as rapidly as possible, existing technologies and commercially available systems will be used whenever appropriate.

Two phases of waste processing are planned. The first phase includes processing of waste from "watch list" tanks to resolve safety issues, and processing of the soluble fraction of the waste (liquid, saltcake, and sludge wash solution) from all tanks. An Initial Pretreatment Module is being designed for addressing the tank safety issues, including destroying organic compounds and removing selected radionuclides. The soluble fraction comprises approximately 70% or more of the waste in the Hanford tanks. This soluble fraction will be processed to remove the majority of the radioactivity and destroy certain hazardous components, including organics and nitrates/nitrites. The pretreated waste stream will be low-level waste and be disposed of onsite, first as grout and possibly later as another improved waste form.

The second phase involves technology development and pretreatment of the insoluble (sludge) fraction of the waste to separate the radioactive and non-radioactive components, and solidification of the radioactive components (plus the radionuclides removed from the soluble fraction) as glass. With the planning base now including treatment of both double- and single-shell tank waste, the glass production capacity of the previously-planned Hanford Waste Vitrification Plant (HWVP) is too small. On the other hand, the capacity of the previously-planned HWVP could be too large if extensive radionuclide separations can be achieved. Thus, expedited decisions must be made about the pretreatment processes that will be applied to the sludge (which will essentially define the amount of radioactive waste to be solidified as high-level waste glass). To provide the information required for making this decision, DOE is developing a program for 1) developing and demonstrating pretreatment technologies, and 2) technologies for improving vitrification capacity. Once a decision has been reached, schedules for the design, construction and operation of additional pretreatment and vitrification facilities can be developed.

Manage System-Generated Waste and Excess Facilities - The low-level waste generated as a result of the processing of tank waste will be disposed of on-site as grout or other compliant waste form. Other secondary wastes will be prepared for disposal in accordance with applicable standards. Excess facilities will be cleaned out and transferred to the Environmental Restoration Program for decontamination and decommissioning. All waste from the tanks will be sufficiently retrieved to meet closure requirements. The empty tanks will be transferred to the Environmental Restoration Program for closure.

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Description/Justification of Change (Cont.)

In summary, the TWRS Strategic outlook can best be viewed in phases. In the first phase, the "Manage Tank Waste" Activities will focus on resolution of safety issues and reducing leaks, characterization of wastes, restoration of the storage system functions, initiation of upgrades of facilities and equipment to bring them into compliance with requirements; reduction of waste volumes; and the construction of new waste tanks. The "Process Waste" Activities will include a program to pretreat selected salt cake and supernate wastes which can be treated with existing technology to yield a compliant low-level waste for subsequent immobilization and disposal and an aggressive technology development and demonstration program to enable a joint selection of a technical approach for treating and immobilizing the difficult-to-treat sludge. "Manage System-Generated Wastes" activities will focus on immobilization and disposal of compliant low-level wastes and cleanup and transfer of excess facilities and equipment to appropriate organizations outside of TWRS.

In the next phase, the "Manage Tank Waste" Activities will focus on completing activities initiated in the first phase, staging waste to facilitate processing, reducing the volume of waste, extending the service life of the storage system, and the design and construction of needed replacement or additional facilities. The "Process Waste" Activities will focus on continuing to process wastes that can be processed to compliant waste forms using available technology to design, construct and operate processing facilities to treat all of the wastes. "Manage System-Generated Waste" Activities will continue activities as discussed above. The long-term horizon is dominated by the acquisition and operation of needed replacement systems until the completion of the processing of wastes for disposal or storage. This period is characterized by the completion of the processing system implementation, emptying of tanks and resultant closure.

Benefits of the proposed New Technical Strategy include:

- Addressing all double- and single-shell tank wastes in a comprehensive manner
- Early resolution of safety issues, minimization of leaks, and improvements in tank farm instrumentation and infrastructure
- Moving forward the decision to retrieve waste from single-shell tanks
- Earlier initiation of tank waste cleanup with pretreatment of soluble fraction
- Potential for less radioactivity being disposed of at Hanford, reducing the environmental impact to the region and minimizing the number of high-level waste canisters to be disposed of in a repository
- Opportunity for technology development and transfer, enhancing the regional technology and economic base
- Improved management as an integrated system
- Enhancement of the Tri-Party Agreement by providing a comprehensive and integrated set of milestones for managing the Tank Waste Remediation System
- Levelized construction impacts on local community infrastructure

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Description/Justification of Change (Cont.)

Section 3: Strategy for Tri-Party Agreement Changes

To reflect the substantial departure from the current Tri-Party Agreement proposed by this change request, the following major changes to the Tri-Party Agreement are proposed:

- Major Milestones M-01 through M-10, and M-31 will be deleted. Much of the work scope encompassed by these milestones will be included in the reconfigured portion of the Tri-Party Agreement as outlined below. To avoid confusion, the numbers deleted will not be reused.

- Three major new milestones groupings will be created to reflect the major programmatic elements of the Tank Waste Remediation System program. These three major milestone groups are:

  - M-40 through M-49 Manage Tank Waste

  - M-50 through M-59 Process Tank Waste

  - M-60 through M-69 Manage System-Generated Waste

  Each of these milestone groupings will have a number of major milestones which reflect the key work to be performed within the program area.

- Finally, milestones will be established for making key decisions on the dual technology development path necessary to select the most viable pretreatment and immobilization pathway. These key decisions on which new technologies to pursue for the future cleanup of tank waste will lead to the development of further milestones. Commitment dates will be established during the public involvement period for those activities where there is an adequate technical and schedular basis.

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Description/Justification of Change (Cont.)

Section 4: Proposed Milestone Outline

Manage Tank Wastes:

M-40 Resolve Tank Safety Issues for High Priority Watch List Tanks

M-41 Complete Single-Shell Tank Interim Stabilization for non-Watch List Tanks

M-42 Provide Additional Double-Shell Tank Capacity

M-43 Tank Farm Upgrades

M-44 Characterize 177 Hanford HLW Tanks

M-45 Evaporator Operation

M-46 New Double-Shell Tank Storage Capacity

M-47 Retrieval of Tank Waste

M-48 Complete SST Retrieval

Process Tank Waste:

M-51 Initiate Pretreatment Operations to Resolve Tank Safety Issues

M-52 Initiate Early Pretreatment Operations to Demonstrate Capabilities and to Provide Tank Space for Resolution of Tank Safety Issues and Management of Tank Wastes

M-53 Develop Pretreatment Technologies for Supernatants, Salt Cake, and Sludge

M-54 Melter Technology Development

M-55 Select TWRS Pretreatment and Immobilization Strategy

M-56 Initiate Operations of Separations Pretreatment Complex

M-57 Design and Construct Hanford Waste Immobilization Plant

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Description/Justification of Change (Cont.)

Manage System-Generated Waste

M-60 Initiate Grout Operations to dispose pretreated, low-level wastes

M-61 Construct New Grout Vaults to Support Grout Operations

M-62 Technology Development for Enhanced Grout or Alternate Low-Level Waste Immobilization Forms

M-63 Design, Construct, and Initiate Operations of Enhanced Low-Level Waste Immobilization Facility

M-64 Operate Enhanced Low-Level Waste Immobilization Facility

Description/Justification of Change (Cont.)

Section 5;

Milestones M-40 through M-49

Manage Tank Waste

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Description/Justification of Change (Cont.)

Milestone Descriptions

Milestone	Description	Proposed Dates
M-40-00	Resolve Tank Safety Issues for High Priority Watch List Tanks	
M-40-01	Complete Tank 241-SY-101 low speed mixer pump test and issue report	March 1995
M-40-02	Upgrade temperature monitoring capabilities in ferrocyanide tanks	December 1995
M-40-03	Complete vapor space sampling of all ferrocyanide tanks	June 1995
M-40-05	Complete process test in high heat tank 241-C-106	August 1995
M-40-06	Complete vapor sampling characterization of tank 241-C-103 (Phase 2)	September 1995
M-40-07	Watch list Tank Interim Stabilization: Recommend new milestones for remainder of stabilization program for the watch list tanks.	March 1995
M-40-07-T1	Complete engineering analysis and safety assessment to determine action to be taken if a Watch List tank begins to leak.	March 1995
M-40-07-T2	Complete safety study analysis and provide report to EPA and Ecology on interim stabilization of all remaining watch list tanks. This study to include: (a) Ferrocyanide tanks (b) Hydrogen/flammable (c) Organic tanks	September 1994
M-40-07-T3	Resolve Criticality USQ in Hanford tank farms to allow waste transfers required by interim stabilization.	March 1995
M-41-00	Complete Single-Shell Tank Interim Stabilization for non-Watch List Tanks	
M-41-01-T1	Interim Stabilize an Additional Five Single-Shell Tanks	October 1994

* Final TWRS program schedules and corresponding milestones will be developed after the public involvement process has been completed and adequate technical and schedular basis has been developed.

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Description/Justification of Change (Cont.)

Milestone Descriptions

Milestone	Description	Proposed Dates
M-41-02	Emergency Leak Response: Prepare an improved single-shell tank emergency pumping capability.	March 1995
M-41-02-T1	Complete Safety Analysis to allow alternate methods for transfer of radioactive waste within single-shell tank (SST) farms.	March 1995
M-41-02-T2	Complete design and procurement of alternate transfer methods, and mount appropriate equipment in the emergency pumping trailer.	September 1994
M-41-02-T3	Issue detailed procedures for emergency pumping (or other action if not safe to pump) for each tank.	March 1995
M-41-02-T4	Complete restoration of 244-U, double-contained receiver tank (DCRT).	March 1995
M-43-00	Tank Farm Upgrades	
M-43-01A	Issue FDC for ventilation systems on double-shell tanks, Project W-061	March 1995
M-43-03A	Issue FDC for tank farm instrumentation, data collection, reduction and analysis as an integrated system, Project W-199	September 1994
M-43-05	Upgrade tank farm electrical distribution systems	
M-43-05A	Issue Engineering Study for tank farm electrical distribution systems	June 1995
M-43-08	Construction of less-than-90-day storage pad: Construct and place in service a fully compliant less-than-90-day storage pad within the 200 areas	September 1993
M-43-09	The USDOE shall provide to EPA and Ecology the draft curricula for the upgraded Maintenance Training program and an implementation schedule for that training.	June 1994

* Final TWRS program schedules and corresponding milestones will be developed after the public involvement process has been completed and adequate technical and schedular basis has been developed.

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Description/Justification of Change (Cont.)

Milestone Descriptions

Milestone	Description	Proposed Dates
M-43-10	The USDOE shall complete the portions of the Nuclear Operator systems class and on-the-job training that relate to the Operator Routines and Liquid Level Monitoring. Documentation of completion of Operator training shall be provided by submittal of a letter from USDOE to EPA and Ecology.	December 1993
M-43-11	The USDOE shall provide to EPA and Ecology the schedule for completing the training for all Operations Supervisors and Shift Managers in accordance with the upgraded Supervisor and Shift Managers will also be provided.	June 1993
M-44-00	Characterize 177 Hanford HLW Tanks	
M-44-01	Take 24 core samples from DST's or SST's	September 1993
M-44-01-T01	Resubmit TWRS waste analysis plan, focusing on safety, retrieval, pretreatment and other processing needs via DQO process	September 1993
M-44-01-T02	Submit 3 tank characterization reports for initial evaluation	September 1993
M-44-02	Issue 20 tank characterization reports	September 1994
M-44-02-T01	Complete all FY 1992 and 1993 core sample analyses	September 1994
M-44-03	Issue 30 tank characterization reports	September 1995
M-44-08	Restore Rotary Mode Core Sampling to Hanford	March 1994
M-45-00	Evaporator Operation	
M-45-01	Restart the 242-A Evaporator - Discharge to LERF Basins	December 1993
M-45-02	Complete Initial Processing of Dilute DST Waste - to LERF Basins	March 1995

* Final TWRS program schedules and corresponding milestones will be developed after the public involvement process has been completed and adequate technical and schedular basis has been developed.

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Description/Justification of Change (Cont.)

Milestone Descriptions

Milestone	Description	Proposed Dates
M-46-00	New Double-Shell Tank Storage Capacity	
M-46-01	Recommend Additional Double-Shell Tank Milestone(s)	December 1993
	This milestone provides an engineering study of future tank storage requirements and will determine if additional tanks will be required to facilitate the cleanup of Hanford tank waste.	
M-48-00	Complete SST Retrieval	
M-48-01A	Start Design for sluicing of high heat waste to resolve safety issue	October 1994
M-48-02A	Complete Technology Development required to support SST Retrieval Demo	September 1994

* Final TWRS program schedules and corresponding milestones will be developed after the public involvement process has been completed and adequate technical and schedular basis has been developed.

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Description/Justification of Change (Cont.)

Milestones M-51 through M-59

Process Tank Waste

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Description/Justification of Change (Cont.)

Milestone Descriptions

Milestone	Description	Proposed Dates
M-51-00	Initiate Pretreatment Operations to Resolve Tank Safety Issues	
M-52-00	Initiate Early Pretreatment Operations to Demonstrate Capabilities and to Provide Tank Space for Resolution of Tank Safety Issues and Management of Tank Wastes	
M-52-01A	Select Initial Tanks for Cesium Removal	April 1994
M-54-00	Melter Technology Development - Complete melter and pretreatment technology development sufficient for disposal long range deployment decisions	
M-54-01	Start Pilot-Scale testing (3-5x HWVP)	December 1994

* Final TWRS program schedules and corresponding milestones will be developed after the public involvement process has been completed and adequate technical and schedular basis has been developed.

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Description/Justification of Change (Cont.)

Milestones M-60 through M-69

Manage System Generated Waste

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Description/Justification of Change (Cont.)

Milestone Descriptions

Milestone	Description	Proposed Dates
M-60-00	Initiate Grout Operations to dispose pretreated, low-level wastes	
M-60-01-T01	Issue WHC Grout Performance Assessment for DOE-HQ Review	July 1993
M-60-01-T02	Complete Grout operations Implementation Plan for Emergency Operations Readiness until pretreated waste is available	September 1994

* Final TWRS program schedules and corresponding milestones will be developed after the public involvement process has been completed and adequate technical and schedular basis has been developed.

CORRESPONDENCE DISTRIBUTION COVERSHEET

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Subject: REQUEST TO MODIFY THE HANFORD FEDERAL FACILITY COMPLIANCE AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT)

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Distribution corrections: Marian Cram, 6-4123 or Debbie Romine, 6-8111